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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/924,307

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Juan Montojo

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02/06/2006

QUALCOMM, INC
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SAN DIEGO, CA 92121

EXAMINER

QURESHI, AFSAR M

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,307

Applicant(s)

MONTOJO ET AL.

Examiner

Afsar M. Qureshi

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-28, 31-45, 48-69 and 72-82 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 29, 30, 46, 47, 70 and 71 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 7, 11, 23, 25-27, 31, 35, 40, 42-44, 48, 52, 64, 66-68, 72, 76 and 81 are rejected under 35 U.S.C. 102(b) as being anticipated by Sarkar et al. (US 6,862,457), "Sarkar" hereinafter.

Claims 1-3, 25-27, 42-44, and 66-68. Sarkar teaches a power control system in wireless communication area including the steps of measuring in first and second one of the first channels and determining power ratio (col. 5, lines 43-56, col. 11, lines 14-29, figure 4). The power is controlled as a function of a parameter of the first channel. Sarkar further discloses procedures employing CDMA and TDMA communicating with a base station by transmitting a reverse link signal in one spectrum (*format*) and a forward link signal in another spectrum (see col. 1, lines 22-59).

Claims 7, 11, 23, 31, 35, 40, 48, 52, 64, 72, 76 and 81. Sarkar further teaches method for power computation by computing the ratio of parameters (see col. 3, lines 1-3) in first and second time periods (reverse link and forward link) during which the power control measurements are made (col. 5, lines 43-49).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13, 14, 16-21, 38, 54, 55, 57-62 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkar in view of Gilhousen et al. (US 5,056,109), "Gilhousen" hereinafter.

Regarding claims 13, 14, 19, 21, 38, 54, 55, 62 and 79. Sarkar discloses base stations, 14a and 14b, configured to receive signals and thereby signals are processed accordingly (see col. 6, 64 through col. 7, lines 38 through col. 8, lines 1-4). However, Sarkar does not go into the specificity of how the waveform are compensated based on the level of the power ration. In the same field of endeavor, Gilhousen discloses a method and apparatus for controlling transmission power. The apparatus include a receiver and processor and transmit power control circuitry (see figure 4, col. 13, lines 45-68 and col. 5, lines 1-3).

Regarding claims 16-18, 20 and 57-61. Gilhousen discloses a frequency downconverter 90 (figure 5) where the received RF signals are converted, filtered and output to a gain amplifier (see col. 14, lines 42-62). As to claims 17, 18, 20, 58-61, Gilhousen further discloses a signal generator 68 (figure 3) providing signal to summer 66 generating the second waveform (see col. 13, lines 31-44)

Therefore a skilled artisan in the relevant art, at the time of invention, would have been able to utilize the power control aspect disclosed by Gilhousen by downconverting received signal to facilitate analog to digital (A/D) converter for digital processing operation and generating a gain control signal *in order to maintain a constant average power level, as sought by Sarkar.*

3. Claims 4, 8-10, 12, 15, 22, 24, 28, 32-34, 36, 37, 39, 41, 45, 49-51, 53, 56, 63, 65, 69, 73-75, 77, 78, 80 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkar in view of Pfeil et al. (US 6,191,738).

Sarkar fails to teach unnormalized cross-correlated value between an actual waveform of the first one of the first channels and an ideal waveform for at least one of the second channels that correlates with the actual waveform, and limitations as set out in the above claims.

Pfeil teaches a wireless communication system with a cross-correlation features that correlates a received signal (actual) with a re-modulated signal (ideal), see col. 5, lines 10-17. The correlation is performed during a time period designated for each signal, see col. 5, lines 20-25. The relative power computation as in claim 10 is disclosed in col. 8, line 49. A ratio is used in solving the correlation computations (col. 5, line 39). Lastly, phase, frequency and time units are used in the correlation computations (col. 7, lines 30-35 and col. 6, lines 10-11).

Sarkar discloses the need to provide a wireless communications system with a dynamic transmission power mechanism without degradation of signal quality (col. 2,

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lines 40-47) wherein Pfeil discloses a method for calculating timing information in a wireless communications system that seeks to locate a remote terminal with relatively high accuracy to avoid delayed signal transmissions (col. 2, lines 5-12). It would have been obvious to one of skill in the art, at the time the invention was made, to be able to combine the computing method for an unnormalized cross-correlated value as stated above in order to obtain a reliable and accurate wireless communications system as desired by Sarkar.

Allowable Subject Matter

4. Claims 5, 6, 29, 30, 46, 47, 70 and 71 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments with respect to claims 1-82 have been considered but are moot in view of the new ground(s) of rejection.

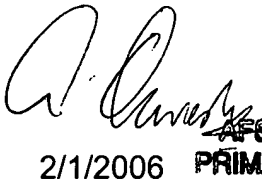
The Applicant's remarks in reference to the filing date for the cited reference, Sarkar et al., US 6,842,624, is noted.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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supervisor, Chi Pham can be reached on (571) 272 3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


AFSAR QURESHI
2/1/2006 PRIMARY EXAMINER